



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone
Product code: D1070
Company: TCI (Shanghai) DEVELOPMENT CO., LTD.
Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China
Responsible Department: Sales Department
Telephone: +86-(0)21-67121386
Fax: +86-(0)21-67121385
e-mail: sales@tcishanghai.com.cn
Revision number: 1

2. HAZARDS IDENTIFICATION

Classification of the GHS

PHYSICAL HAZARDS	Not classified
HEALTH HAZARDS	
Acute toxicity (Oral)	Category 3
Acute toxicity (Dermal)	Category 3
Acute toxicity (Inhalation)	Category 3
ENVIRONMENTAL HAZARDS	Not classified

GHS label elements

Pictograms or hazard symbols



Signal word	Danger
Hazard statement	Toxic by inhalation, in contact with skin and if swallowed
Precautionary statements	
[Prevention]	Avoid breathing. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear protective gloves and eye/face protection.
[Response]	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. IF ON SKIN: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Call a POISON CENTER or doctor/physician if you feel unwell.
[Storage]	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
[Disposal]	Dispose of contents/container through a waste management company authorized by the local government

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance
Component(s): 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone

3. COMPOSITION/INFORMATION ON INGREDIENTS

Percent:	>97.0%(T)
CAS Number:	84-58-2
Synonyms:	DDQ
Chemical Formula:	C ₈ Cl ₂ N ₂ O ₂

4. FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion:	Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
Specific hazards:	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
Specific methods:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Special protective equipment for firefighters:	When extinguishing fire, be sure to wear personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use extra personal protective equipment (P3 filter respirator for toxic particles). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Prevent product from entering drains.
Methods and materials for containment and cleaning up:	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Handling

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated.
Advice on safe handling:	Avoid contact with skin, eyes and clothing.

Storage

Storage conditions:	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store under inert gas. Protect from moisture. Store locked up. Store away from incompatible materials such as oxidizing agents.
Packaging material:	Law is followed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Install a closed system or local exhaust. Also install safety shower and eye bath.
------------------------------	------------------------------------------------------------------------------------

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

- Respiratory protection:** Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
- Hand protection:** Impervious gloves.
- Eye protection:** Safety goggles. A face-shield, if the situation requires.
- Skin and body protection:** Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state (20°C):** Solid
- Form:** crystal - powder
- Color:** Yellow - Brown
- Odor:** No data available
- pH:** No data available
- Melting point/freezing point:** 214 °C
- Boiling Point/Range:** No data available
- Flash Point:** No data available
- Explosive limits**
- Lower:** No data available
- Upper:** No data available
- Density:** No data available
- Solubility:** Soluble in : Benzene Methanol Acetic acid Dioxane
Slightly soluble in: Chloroform Dichloromethane

10. STABILITY AND REACTIVITY

- Stability:** Stable under proper conditions.
- Reactivity:** No special reactivity has been reported.
- Conditions to avoid:** Moisture-sensitive, Air-sensitive
- Incompatible materials:** oxidizing agents, strong acids, strong bases, reducing agents, alcohols
- Hazardous Decomposition Products:** Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Hydrogen chloride, Hydrogen cyanide

11. TOXICOLOGICAL INFORMATION

- Acute Toxicity:** ipr-mus LD50:31 mg/kg
ivn-mus LD50:13 mg/kg
- Skin corrosion/irritation:** No data available
- Serious eye damage/irritation:** No data available
- Germ cell mutagenicity:** mmo-sat 180 nmol/plate (+S9)
- Carcinogenicity:**
- IARC =** No data available
- NTP =** No data available
- Reproductive toxicity:** No data available
- RTECS Number:** GU4825000

12. ECOLOGICAL INFORMATION

- Ecotoxicity:**
- Fish:** No data available
- Crustacea:** No data available
- Algae:** No data available
- Persistence / degradability:** No data available
- Bioaccumulative potential(BCF):** No data available
- Mobility in soil**
- log Pow:** No data available
- Soil adsorption (Koc):** No data available

12. ECOLOGICAL INFORMATION

Henry's Law constant(PaM³/mol): No data available

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class: 6.1: Toxic substance.
UN-No: 3439
Proper shipping name: Nitriles, toxic, solid, n.o.s.
Packing group: III

15. REGULATORY INFORMATION

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

The list of a dangerous chemical(2002)/CN-No.: 61823

16. OTHER INFORMATION

The reference company name of written contents

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.
Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China
Department: R&D (Information Management) Department
Telephone: +86-(0)21-67121388*461
Fax: +86-(0)21-67121385

This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.